PIN9

THE COST OF PREVENTING INFLUENZA PANDEMIC: MEXICAN ELDERLY POPULATION SCENARIO

Soria-Cedillo IF[1], Baca-Muro VI[2], Alejandro P[3], Garcia-Contreras F[4]

[1]Research Consulting, Hacienda Ojo de Agua, Mexico, [2]Research Consulting, Puebla, Mexico, [3]Novartis Farmaceutica Mexico, Mexico City, Mexico City, Mexico, [4]Instituto Mexicano de Seguro Social, Mexico D.F., Mexico

OBJECTIVES: To compare the budget impact in the main Public Health Institution in Mexico due to the use of MF59-adjuvanted vaccine (MF59), split vaccine (SPL) and a No Vaccination Program Alternative (NOVA) in Mexican elderly population. **METHODS:** A budget impact analysis considering a public health institution perspective was performed. The expenses of the Mexican Health Care System due to a vaccination program (vaccines, vaccination program, medical visits, treatment of influenza and influenza related complications, hospitalization and intensive care unit cost) were simulated with MF59 or SPL versus NOVA in elderly population affected by an influenza pandemic. A case scenario of high incidence influenza (5% of population) with three sub-scenarios was designed: a) 20%, b) 30%, and c) 50% of patients developing complications related to influenza. A systematic literature review was designed in order to include the most recent information about vaccines effectiveness measured as the ability of provide seroprotection against Influenza A/H1N1 strain and pandemic historical influenza incidences recommended by World Health Organization. Use of resources and cost matrixes were designed with the most recent data of main Public Health Institution in Mexico, which attends about fifty percent of the total population in Mexico. **RESULTS:** The cost of treatment of influenza and complications related to influenza were estimated in US$38.84 and US$5,052.06, respectively. Simulating prevention of influenza pandemic affecting 5% of Mexican elderly population results in less expenses for Public Health Institutions when MF59 is used in vaccination program compared to SPL and NOVA without varying the proportion of patients getting complications related to influenza (20%: MF59-US$69,833,474.83; SPL-US$84,692,366.64; NOVA-US$236,082,644.63. 30%: MF59-US$84,610,768.22; SPL-US$117,657,098.05; NOVA-US$349,754,132.23. 50%: MF59-US$113,903,164.91; SPL-US$183,586,560.86; NOVA-US$577,097,107.44). **CONCLUSIONS:** Using an MF59-adjuvanted vaccine as a preventive alternative in an Influenza Pandemic affecting elderly population in Mexico, represents important savings for Mexican Public Health Institutions compared to SPL and NOVA.

PIN10

A BUDGET IMPACT MODEL TO ESTIMATE THE ECONOMIC IMPACT OF ITRACONAZOLE IN PROPHYLAXIS OF INVASIVE FUNGAL INFECTIONS IN PATIENTS WITH NEUTROPENIA IN SPAIN

Darba J[1], Restovic G[2]

[1]Universitat de Barcelona, Barcelona, Spain, [2]BCN Health Economics & Outcomes Research SL, Barcelona, Spain

OBJECTIVES: A budget impact model (BIM) was developed to estimate the economic impact of intraconazole in prophylaxis of invasive fungal infections (IFI) in patients with neutropenia in Spain. **METHODS:** A BIM was developed using published data for disease prevalence, population growth, pharmaceutical ex-factory prices, health care resource consumption and market shares forecasting for Spain. This study was developed under the perspective of the health care system and time horizon considered was 5 years with an annual discount rate of 3%. According to a panel of clinical experts, drugs considered in this study were all different "azoles" currently used in prophylaxis in Spain regardless whether they have been authorized for this purpose or not. These are the following ones: itraconazole, posaconazole, fluconazole and voriconazole. This model estimated the cost of this disease for the Spanish health care system with and without the partial replacement (from 5% to 15%) of posaconazale by itraconazole. All costs were referred to year 2009. **RESULTS:** According to official statistic, target population with hematologic cancers in prophylaxis of IFI in Spain would be around 70,000 patients in the first year, arriving at 75,000 in the 5th year. Direct medical costs for the next 5 years were estimated at €1424 million before the replacement of posaconazole by itraconazole. Costs were estimated at €1423 million whether this replacement would take place. **CONCLUSIONS:** The replacement of posaconazale by itraconazole in a very low percentage (from 5% to 15%) would represent a savings of €830,000 for the Spanish health care system in the next 5 years.

PIN11

BUDGET IMPACT ANALYSIS OF NEW ANTRIRETROVIRAL MEDICINES FOR TREATMENT OF HIV PATIENTS IN BULGARIA

Dimitrova MJ, Stefanova MT, Petrova GI

Medical University Sofia, Faculty of Pharmacy, Sofia, Bulgaria

OBJECTIVES: To analyze the budget impact of two newly registered for Bulgaria antiretroviral medicines tenofovir and emtricitabine for treatment of HIV infection. The point of view is that of health care system and time horizon is one year. **METHODS:** Budget impact model was created for antiretroviral medicinal therapies for first and second line treatment. Two scenarios were analyzed for highly active antiretroviral therapy (HAART) including 12 medicines combinations for first line and 7 combinations for second line therapy. Health care resources included in the model are medicines, physician consultation first and 11 follow up attendances, 12 clinical, 3 virology and 6 immunology tests. In the model was varied the cost of the medicines therapy and number of patients. **RESULTS:** Untill June 2009 in Bulgaria are registered 991 HIV positive patients and near 230 of them are on highly active antiretroviral therapy (HAART)—first or second line depending on their virology status. Preliminary results from the budget impact model show that in the first scenario (first line therapy) the combination tenofovir—emtricitabine—efavirenz is cost saving to the health care system compared to three of the most effective HAART regimens: AZT/3TC- LPV/r, 3TC/ABC- SQV and TDF-3TC-EFV and saves 141 981,46 Euro, 83461,53 Euro and €2445.99, respectively for one year. The second scenario (second line therapy) is indicated only for certain patients according to their virology status. In this scenario the regimen TDF-FTC-EFV is cost saving to the health care system in comparison with TDF-3TC-EFV and saves €2445.99. **CONCLUSIONS:** TDF-FTC-EFV is cost saving for the health care system compared to three of the most effective regimens in Bulgaria. The combination is much appropriate as first line HAART.

PIN12

BUDGET IMPACT ANALYSIS OF THREE CANDINS IN THE TREATMENT OF INVASIVE CANDIDIASIS IN ADULT NON- NEUTROPENIC PATIENTS IN SPAIN

García M, Martí B, Ferro B

Health Outcomes Research, Pfizer, Spain

OBJECTIVES: Three candins had been approved for the treatment of invasive candidiasis (IC). Different drugs are associated with different needs for dose adjustment which might affect the total cost. The aim of this study was to estimate the budget impact of caspofungin, micafungin and anidulafungin in the treatment of 100 patients with invasive candidiasis from the perspective of the Spanish hospital pharmacy setting. **METHODS:** Possible scenarios varying percentage of doses adjustment required were also considered to assess the global impact on costs. Prices for each presentation were obtained from the Spanish database "portalfarma", expressed in €2008. Only drug acquisition costs were considered into the analysis. Total cost for the three candins was finally displayed. **RESULTS:** Cost per episode associated with the use of anidulafungin remained constant at €6000. When considering caspofungin, cost-per-episode varies from €4665 to €7991 depending on the patient's weight and hepatic dysfunction. Finally micafungin total cost-per-episode was estimated at €6,000 when low doses where required while higher doses based on inadequate respond had a cost of €10,714 per IC episode. Total cost based on a hypothetic cohort of 100 patients with IC treated with anidulafungin would be of €600,000, while the cost of caspofungin and micafungin on the base case will be €637,084 and €632,998, respectively, depending on dose adjustment required. **CONCLUSIONS:** Patients treated with Anidulafungin did not required dose adjustment unlike caspofungin and micafungin. The use of anidulafungin in the treatment of adult non-neutropenic patients with invasive candidiasis is a cost saving treatment option that allows a better control of antifungal budget based on a lower total cost per episode, from the pharmacy department perspective in Spain.

PIN13

BUDGET IMPACT MODEL: LEVOFLOXACIN VS STANDARD THERAPIES IN THE TREATMENT OF INPATIENT CAP

Pitrelli A[1], Bamfi F[1], Pippo L[2]

[1]GlaxoSmithKline Spa, Verona, Italy, [2]GlaxoSmithKline Verona -Italy, Verona, Italy

OBJECTIVES: To develop a Budget Impact Model (BIM) to estimate the financial consequences of the use of levofloxacin for the treatment of community-acquired pneumonia (CAP) in Italian Hospitals to support health decision makers. **METHODS:** We developed a BIM for levofloxacin that compares current treatments for CAP, their efficacy and safety and the resource use and costs as apply to the population of interest. Several dimensions were considered: drug consumption, frequency and days of treatment, health care professional costs, disposable (material), hospitalization costs and need of a second line treatment. Different scenarios in antibiotic treatment of CAP were included for comparison, such as i.v. therapy or switch therapy and levoxacin is compared to current alternative in monotherapy and in combination therapy. **RESULTS:** CAP is an infection still associated to considerable rates of morbidity and mortality and with important consequences from the social and economic perpspective. In Italy the annual incidence of hospitalization due to CAP is about 3 cases every 1000 habitants, with rather high mortality rates: from 15/100.000 cases of the national mean to 70/100.000 cases for subjects older than 65 years. More than 90% of CAP costs are associated to hospitalizations (500 million euro. The model we developed results in an interactive tool that allows users (payers) to understand the relation between the characteristics of their scenario and the possible budget consequences of the different treatment choices and informs them about the most affordable option among current treatments for CAP (including levofloxacin) according to the features of their own scenario **CONCLUSIONS:** BIMs are primarily intended to inform health care decision makers, especially those who are responsible for national, regional, or local health care budgets. For this reason methodology and results were reviewed in an external engagement with payers to validate the model in a real scenario.

PIN14

BUDGET IMPACT OF HIV POST-EXPOSURE PROPHYLAXIS: AN EXAMPLE OF HOSPITAL POINT OF VIEW AFTER NEW RECOMMENDATIONS IN FRANCE

Bernard M, Askin D, Massias L, Arnaud P

Bichat-Claude Bernard hospital, Paris, Ile de france, France

OBJECTIVES: Bichat-Claude Bernard hospital (BCB) is one of the reference centers in HIV care in Paris (France) and has established procedures for post-exposure prophylaxis (PEP). Only patients at high risk of contamination received antiretroviral (ARV) treatment. The aim of this study was to describe the use of PEP (occupational